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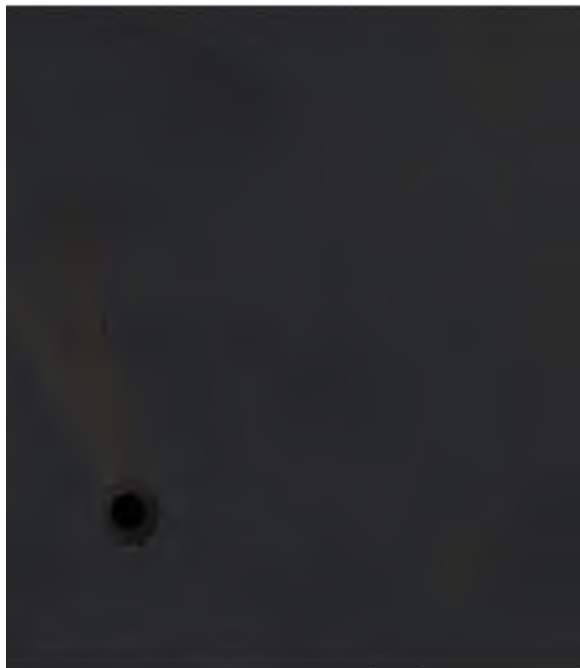
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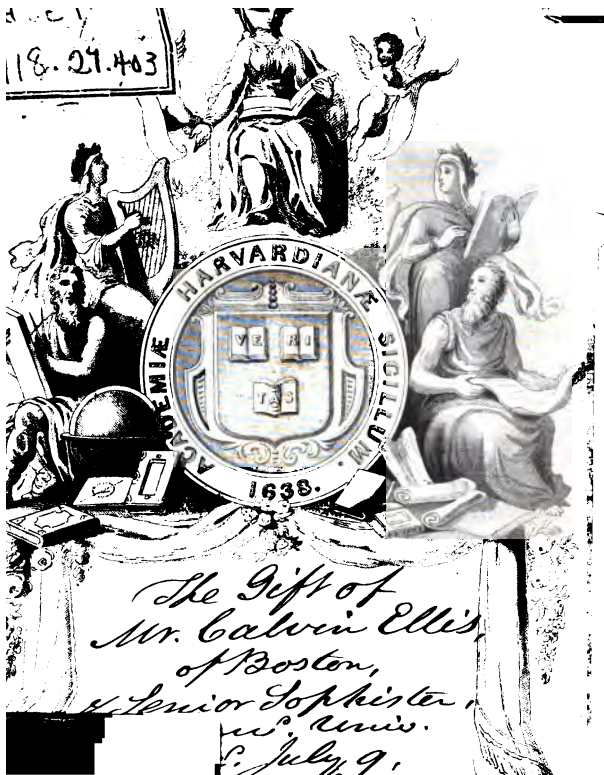












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The Gift of
Mr. Calvin Ellis,
of Boston,
Senior Sophister,
J. C. Univ.
J. July 9.

Lacey THE *Ellis*
CHILD'S ARITHMETICK,
OR THE
ELEMENTS OF CALCULATION,
IN THE SPIRIT OF
PESTALOZZI'S METHOD,
THE USE OF CHILDREN BETWEEN THE
AGES OF THREE AND SEVEN YEARS.

BY **WILLIAM B. FOWLE,**
Instructor of the Monitorial School, Boston,

SECOND EDITION.

Boston:
PUBLISHED BY THOMAS WELLS,
Union Street and Hanover Street.
1827.

.....
HARRIS & NORTON, PRINTERS.

WILLIAM B. FOWLE, INSTRUCTOR OF THE MONITORIAL SCHOOL,
Boston."

In Conformity to the act of the Congress of the United States, entitled, "An act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned;" and also to an act, entitled, "An act supplementary to an act, entitled, An act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned; and extending the benefits thereof to the arts of designing, engraving, and etching historical, and other prints."

JNO. W. DAVIS,

Clerk of the District of Massachusetts.

PREFACE.

SOMETHING like this little work, had, for more than a year, been used in manuscript in the Monitorial School, when No. 3 of a useful English publication, called "Hints to Parents," was put into the author's hands. Believing that these "*Hints*," however valuable, would meet with little attention unless presented to the publick in a more practical form, the author was induced, at the request of a friend, to incorporate his own manuscript with what was valuable in the printed "*Hints*," and this Manual is the consequence.

The author hopes that it is not necessary

son as, or even before, reading ~~the~~
his experience has satisfied him that this may and
e done, and the languor and inactivity which pe
st elementary schools, induce him to hope that
done.

It is perhaps unnecessary to add, that this *Man*
pared in the spirit of PESTALOZZI's method, s
tended as an introduction to the more advanced w
OLBURN, which has wrought such a revolution in
hools. Parents who have a just regard for the l
as as well as improvement of their little ones, i
annot find time to instruct them at home, will do
e that they are instructed in these or similar o
school.

WM. B. FOW

~~at the~~ School, Boston, April, 1826.

VARIOUS articles may be used for counters, and perhaps the greater the variety, the more interest will be excited in the little pupils. But as it is desirable not to confuse their ideas, only one kind of counters should be used *at first*, and the best, on some accounts, are flat pieces of wood about an inch long and half as wide; and as only five will be necessary, they may be made exactly alike, for if the child can distinguish them, when told that the first is *one*, the second *two*, &c. he will think that no other can be called *one*, or *two*, and if you place what was called one in the fifth place, he will still call it *one*, as he *did* before.

LESSON I.

Having provided the five counters, call the little class around you, and require them to put their hands behind them to prevent their handling the counters unless told to. Then put down *one* and say, there is *one*. Let each child repeat after you, *one*. Then put down another, and say, there is one more, and *one* and *one more* make *two*. Then take *both* up, and putting one down again, ask how many you put down. If no child in the class can say, you must say *one*, and require them to repeat *one*. Then put down another, saying as before, one and one more make two. Let them repeat always. Do not proceed to the *third* counter until they can count two. When you put down the third, say, one and one more are *two*, and one more makes three. Then take *all* up, and go over the same process again until the children can count three. This will require a great stock of patience, *but it is important* that the child be advanced.

no faster than he perfectly comprehends. There is no fear of impatience on the part of the *children*, for, until they feel perfectly acquainted with *three*, they will not be anxious to try a larger number.

Be sure to put down but one at a time, and when it is time to put down a fourth, put down one (and always requiring the class to repeat after you) say one, then putting down another, say, one and one make two—then putting down another say one and one are two, and one more makes three, and one more makes four.

Go through the same process when you put down the fifth. Be particular to name the units or single ones of which the number five is composed. This lesson will require a considerable time to be well understood, but it is better to dwell too long than too short a time upon it. The exercise may be varied by using beans, cents, blocks, fingers, &c. for counters. Indeed it will greatly increase the

interest the children take in the exercise if little wooden or pewter men, such as are found at the toy shops, be used.

II.

After the children have thus learned readily to count five, put down two counters at once, and ask the first child how many there are down. It is possible that he cannot tell. He must at any rate be required to put his finger upon one and say *one*, (then, putting his finger upon the other, let him say) and one more makes two. It is very important that the child be required to touch each counter.

Then let the next count in the same manner, till each of the class has tried, and if one miscounts, let the next correct him.

When it is evident that they can all count two, put down three counters at once in a *line*, and let the highest put his finger upon *each*, saying one and one are two, and one

more makes three. Let each try as before, touching and correcting.

So put down four and then five, proceeding carefully in the same manner, and continuing the exercise upon each number until you are satisfied that all the children understand it. Vary the exercise with the different sorts of counters.

III.

Put down the whole five in a line, previously taking care to chalk or ink as many spots as there are counters, that when you take up any counters the spots may assist the child to tell how many are taken up.

When the counters are laid upon the spots above mentioned, take up one and ask how many are gone. Then put it down again and take up two, asking how many are gone as before. Let the child say two ones, or one and one which make two. Then put all down, and take up three, then four, and five in the same manner. To make this lesson

are interesting, set up five of the pewter men, and knocking one down, ask how many are down; then set him up and knock down two, and so on.

IV.

This lesson is the reverse of the third. Place the five counters on the five spots, and then taking away one, ask how many are left. Let the child put his finger upon each and count as in Lesson I. Then put all down again and take up two, asking how many are left as before. Put all down before you take up three and four in the same manner. Thus the child will learn to count backward from five to one.

To vary the exercise, let the children turn their backs and taking up four, two, one, three at hazard, let them see which can first, how many are gone, and then how many are left. Do this with the little men, knock some down and ask how many are down, how many standing.

V.

Put down one counter and then another at some distance. Then ask the child to put them together and tell how many they make.

Put down one and then two more at a distance. Tell the child to put them together and tell how many they make.

Then put down one and three at a distance, then one and four at a distance, and ask the child to put them together and count them as before. If you please you can hold a part in each hand, letting the child take them out and put them together.

Then put down two and two more at a distance and proceed as before. Then *two* with *three* at a distance. Do this until the child is familiar with every combination that can be made with five counters.

To vary the exercise take a finger or two of one hand and a finger or two of the other, and let the child add them together.

VI.

Put down one and call it once one. Put down two and ask how many times one you put down. Put down three, and four and five, and ask the same question each time.

Then to make them familiar with this, put down one or three or five or two or four at hazard and ask how many times one are put down.

Do this with beans, cents, men, or any other objects, for the sake of variety.

VII.

Taking fifteen counters place them thus:

*		*				*				
*	*					*	*			
*	*	*			or thus:	*	*	*		
*	*	*	*			*	*	*	*	
*	*	*	*	*		*	*	*	*	*

Then ask the child to tell which line contains two, one, five, three, or four counters. Then alter the position and putting five in

the three's place, and four in the two, ask which line contains one, three, four, two, five.

Then point to a row and ask how many times one are in it.

VIII.

By this time it is expected that the child can readily count five, he will therefore be prepared to proceed to ten in the following manner.

Let the child count five as you put them down one at a time. Then put down one more, and say, five or five times one and one more are six. Let each child count from one to six as in Lesson I.

Let the first child count six again, and then put down one more, and say, six times one and one more make seven. Then make each child count from one to seven.

Do this until every child readily counts seven, and then proceed to eight, then to nine and ten in the same cautious manner.

Next, go over the same course with the fingers. Let the children from the first be told that they have five fingers on each hand for they will be sure not to count the thumb as a finger unless told to do so.

As far as Lesson VII. the exercises can be performed with one hand; it is easy, therefore, to hold up one finger of the other hand and then two, &c. until they can count the fingers on both hands.

For variety you may now take the little men, and laying all flat, let the child stay them up in a line, counting them as he sets them up.

IX.

As soon as the child can readily count from one to ten, put the whole ten counters in a line, taking care, as in lesson III. to find spots for the counters to lie upon.

Take up one, and ask how many are left. Then take up another and ask the same question, and so on until all are taken up.

Next, place all ten in a row, and taking up one, ask how many are left. Put the counter down again, and taking up two, ask how many are left. Put the two down, and then taking up three, ask the same question. So go on to ten, taking care to lay the whole ten down before you take any more up.

Do this with various counters.

X.

Place the ten counters on the marks described in Lesson III. Let the child whose turn it is to answer, turn round, then take away one or two or three or more from different parts of the line, (say the second and fifth, or first, fourth and ninth,) and then letting the child look on, ask him how many are missing.

Try the above *with the marks* some time, and if the children find it very easy, you may take away the dots and use only the counters. If they are puzzled at this, you must *require them to count what are left, and then*

holding several counters in your hand let them pick out as many as will make up the number ten.

XI.

Put down one and one more at a distance, and ask how many one and one more make. Do the same with one and two placed apart. Then one and three, one and four, to one and nine.

Next put down two and two more apart, and ask how many two ones and two ones more make. Do the same with two and three, two and four, two and five, two and six, two and seven, and two and eight, taking care in your question to ask the child first how many times one there are in each number, and then how many so many times one and so many more times one added together amount to.

Then pursuing the same plan, put down *three* and one apart, and ask how much *three ones* (or three times one) and one one (or

Then try three and two, three and three, three and four, three and five, three and six, three and seven.

Then try four and one, four and two, four and three, four and four, four and five, four and six.

Then five and one, five and two, five and three, five and four, five and five.

Then six and one, six and two, six and three, six and four.

Then seven and one, seven and two, seven and three.

Then eight and one, eight and two.

XII.

Put down two counters, and ask how many times one they are. Then say two times one are how many times two?

Put down four, and first asking how many times one they are, separate them into twos, and ask how many times two are four times one.

s, and when the child understands
ant by a *two*, that is a *unity of two*,
Lesson XIII.

XIII.

Put down four, and say how many
e? then how many times two?

Let the *child* separate them into o
os.

Put down six and ask how many one
any twos? Do the same with eight

Put down ten and ask how many
wn and how many twos. Then kee

ay two and asking how many ones
many twos?

Put down eight and ask how many ones? how many twos? how many fours?

Put down nine and ask how many ones? how many threes?

Put down ten and ask how many ones? how many twos? how many fives?

XV.

Lay down three and ask, how many ones? how many twos? The child must be left to frame his own answer, but must be told finally to say three ones are one two and one one more.

Then ask what part of two ones is one one? Teach him to say, one one is a half of two ones.

Put down five and ask how many ones? how many twos? What part of two ones is one one?

Take seven and ask how many ones? how many twos, &c.

Then take nine and do the same.

For further exercise in this lesson
down the whole ten in a heap, and say

2 times 1	} are how many times
3 times 1	
4 times 1	
5 times 1	
6 times 1	
7 times 1	
8 times 1	
9 times 1	
10 times 1	}

Let the child count out as many times
as you say and then separate them into

XVI.

Put down two counters, and say, two
ted into two numbers or parts will make
ones. Three separated into two will
will make a two and a one.

The teacher must separate and do
first.

Four, he will say, make two and two
three and one. Five will make four and
or three and two.

P After the child seems to understand this, put down two, and ask what two numbers will make two? *Let the child separate them.*

Put down three, and ask what two numbers will make three.

Q What two numbers will make four? If the child says two and two—ask the next if any other two numbers will make four?

What two numbers will make five? six? seven? eight? nine? ten?

XVII.

M Put the ten counters in a heap and ask how many are two counters and one counter? **M** Then one and two? three and one? one and three? four and one? one and four? five and one? one and five? six and one? one and six? **M** seven and one? one and seven? eight and one? one and eight? nine and one? one and nine? Let the child take the counters and **M** find out himself.

Then two and two? two and three? three

and two? two and four? four and two? two and five? five and two? two and six? six and two? two and seven? seven and two? two and eight? eight and two?

Then three and three? three and four? four and three? three and five? five and three? three and six? six and three? three and seven? seven and three?

Then four and four? four and five? five and four? four and six? six and four? then five and five?

XVIII.

Put the counters all down and say, two are how many more than one?

Three are how many more than one? than two?

Four are how many more than one? than two? than three?

Five are how many more than one? two? three? four?

Six are how many more than one? two? three? four? five?

Seven are how many more than one? two? three? four? five? six?

Eight are how many more than one? and so on to seven?

Nine than one? and so on to eight?

Ten than one, and so on to eight?

Then vary the exercise by saying, ten are how many more than nine? than eight? seven? six? five? four? three? two? one?

Nine are how many more than eight? &c. to one.

Do the same with eight, seven, six, five, four, three, and two. It will occupy too much room to write all the questions at full length.

XIX.

Lay the ten counters down and say, one is how many less than two? than three? four? five? six? seven? eight? nine? ten?

Two are how many less than three, four, five, six, seven, eight, nine, ten?

Three are how many less than four, five, six, seven, eight, nine, ten?

Four are how many less than five, six, seven, eight, nine, ten?

Five are how many less than six, seven, eight, nine, ten?

Six are how many less than seven, eight, nine, ten?

Seven are how many less than eight, nine, ten?

Eight are how many less than nine, ten?

Nine are how many less than ten?

XX.

Put down one and say, how many more must I put down to make two? three? four? five? six? seven? eight? nine? ten?

Put down two and ask, how many more must be put down to make three, four, five, six, seven, eight, nine, ten?

Put down three and four, and so on to nine, and ask the same questions; that is, how

many more must I put down to make the numbers above the number first put down.

Thus far the child has been assisted in every operation by the counters. He will now be prepared to do some very simple calculations without the aid of sensible objects, but he is not to be required to do so unless prepared for it, for the use of counters must be continued until the child is capable of imagining them to be before his eyes.

XXI.

1. How many fingers have you on one hand if you count the thumb?
2. How many fingers have you on one hand if you do not count the thumb?
3. How many thumbs have you?
4. How many thumbs and little fingers have you?
5. How many eyes should two little girls have?

6. How many hands will two little girls have?

7. How many noses will four girls have?

8. How many shoes will two little boys need?

9. How many shoes does it take to make a pair?

10. How many hands will a pair of gloves cover?

11. How many hands will two pair of gloves cover?

12. How many legs are there to a chair?

13. If the chair had one more leg, how many legs would there be then?

14. How many more legs has a chair than you have?

15. How many legs has a bird?

16. How many more legs must a bird have to have as many as a horse or chair?

17. If you have one cent and I give you *two more*, how many will you have then?

18. If your father gives you two cents and

your mother two more, how many cents will you have?

19. How many legs has an andiron?

20. How many legs have two andirons?

21. If two little girls meet two more little girls, how many will there be in all?

22. If you buy one apple to-day and four to-morrow, how many apples will you have bought in all?

23. If you find two pins to-day and two more to-morrow, how many pins will you have?

24. How many wings have two birds?

25. How many wings have three birds?

26. If you give three cents to me and two to your sister, how many cents will you give away?

27. If you buy two apples with one cent and three apples with another cent, how many apples will you have?

of them, how many will you have left?

2. If you have three apples and eat two of them, how many will be left?

3. If you have four pins and use three of them, how many will be left?

4. If you have four cents and give three of them to a poor child, how many will be left?

5. If there are four lamps burning on a table and you blow out three of them, how many will be left burning?

6. If one leg of a chair be broken, how many legs will it have to stand up on?

7. If you have five books and give three of them to a friend, how many will be left?

10. If you
four go to school

11. If you
tells you to
rest to your
have to give

12. If a
rats eat up
the chicken

e
1. If I
niece, how

6. If I had twice as many hands as I have, how many hands should I have?

7. If you had five times as many tongues as you have, how many tongues would you have then to be noisy with?

8. What animal has as many again feet as you have?

9. I gave a little boy two cents, and instead of thanking me, he said he wanted twice as many as I gave him. How many did he want?

10. How many 'ear' rings must I get for two pair of ears?

XXIV.

1. I wish to divide two apples between two boys, how many will they have apiece?

2. If I have three cents and give them to three little girls, how many cents will each little girl have?

3. If I give four pins to two little girls, how many will each have?

4. If you have five cents and buy five oranges, how much will the oranges cost apiece?

5. A little boy walked five miles in five days, how many miles is that for one day?

6. A little girl gave four cents for two oranges, how much did she give a piece for the oranges?

7. Four hands must have how many pair of gloves?

8. How many pair of tongs must be put together to make four legs?

9. How many boxes will hold five cents, if you put only one cent in each box?

10. If I give you one cent and your father gives you three more, how many peaches can you buy at a cent apiece?

XXV.

1. If you have five pins and find one more, how many pins will you have then?

2. If you spend four cents to-day and two more to-morrow, how many cents will you spend in all?

3. If three cents are given to you to-day and three more to-morrow, how many cents will you have in all?

4. If a bird has two feet and a dog four, how many feet will both dog and bird have?

5. One book is put upon a pile of five others, how many books will there be then?

6. If a boy who has six marbles finds one more, how many will he have then?

7. If a cake costs five cents and an orange two cents, how many cents will both the cake and orange cost?

8. Four birds alight upon a tree where there are three birds already; how many birds will be on the tree then?

9. Three girls go to play with four other girls, then how many girls are there together?

10. Two beans are put into a box where there were five other beans before. How many beans will there be in all then?

XXVI.

1. If you pay seven cents for a doll, and one cent for a needle, how many cents will you spend for the doll and needle?

2. If you lose six pins to-day and two pins to-morrow, how many will you loose on both days?

3. One man gives a poor boy five cents and another man gives him three more cents; how many cents does the poor boy get?

4. A thimble costs four cents and a doll four more, how many cents must a little girl have to buy the doll and thimble too?

5. A poor man has three sons and five daughters; how many children has he?

6. One hen had two little chickens and another hen had six chickens. The hen with two chickens died, and her two little chickens went with the other hen, how many chickens had the hen that was alive after that?

XXVII.

1. If seven men are riding in a coach and two more get in, how many will be in the coach then?

2. If six cents be given for a whistle and three cents for a top, how many cents will the whistle and top cost?

3. A man gives five cents to his son and four cents to his daughter; they put all their cents in a heap, and how many do you think there were?

4. A little boy was carrying a basket of apples, and four apples fell through a hole in the bottom of the basket, and five rolled over the top of the basket; how many did the little boy drop?

5. One book cost three cents and another six, how much did both books cost?

6. If you give two cents for some thread and seven cents for some needles and pins, *how many cents will the whole cost?*

XXVIII.

1. If you place one chair by the line chairs, how many chairs will there be?
2. Eight men come into the room. There are two men already, how many must be got that all may sit down?
3. Seven fingers and three fingers. How many fingers?
4. Two little girls wish to buy a doll. One puts in six cents and the other four. How much did the doll cost?
5. A little boy spends all his money on whistles and gives five cents apiece to three boys; how much did he spend?
6. A little boy is four years old, how old will he be at six years from this time?
7. A little boy has three cents and another has seven cents, how many cents have both?
8. If you have two books and your friend has eight more, how many books have you?

XXIX.

1. If you have two pins and lose one of them how many will you have left?

2. If you have 6 cents and spend 2 of them for cake, how many cents will you have left?

3. If you have six cents and give three to a sick woman, how many are left?

4. If you let six beans drop and only find four of them, how many will be lost?

5. If seven books are in a pile and you take one away, how many will be left?

6. A cake and an orange together cost seven cents. If the orange cost two cents, what did the cake cost?

7. Seven birds are on a tree; if three fly away, how many will remain on the tree?

8. Seven little girls were playing together, but four were sent for home, how many were left to play after the four were gone?

9. Seven apples were in a basket and a naughty boy, without leave, ate five of them, how many were not eaten?

XXX.

ou have eight cents and give one for
and the rest for a thimble, how much
himble cost?

ou have eight pins and two have no
them, how many have heads and are

oor boy has eight cents; a man gave
of them and a lady the others, now
r did the lady give him?

himble and a doll together cost eight
the thimble cost four cents, what
ill cost?

oor man had eight children, but five
died of a fever; how many are still

an had eight bottles of wine but six
tles got broken, how many whole
ere left?

XXXI.

persons are riding in a coach, but
m get out, how many will be left?

2. A man has nine children and only three of them are girls, how many boys must there be then?

3. A boy wishes to buy a book, but it costs nine cents, and he has only four; how many more must he get before he can buy the book?

4. Nine apples are in a basket and five of them are very rotten, how many good ones are there?

5. Two books together cost nine cents, but the largest cost six cents; how much did the smallest cost?

6. Nine boys are sliding on the ice and seven of them slip down; how many do not slip down?

XXXII.

1. Ten birds are on a tree and all are yellow but two, how many yellow birds are there?

2. If ten men come into a room where there are but three chairs, how many more chairs will they need?

3. A poor little boy had two of his fingers
eaten off; how many fingers had he left?

4. A boy buys two play things for ten
cents, one of the play things cost five cents;
how much did the other cost?

5. A girl is ten years old; how old was she
x years ago?

6. A boy and his sister have got ten cents
in a little box; the boy owns seven of the
cents, how many does his sister own?

7. A boy owns ten picture books and gives
six of them to his little sister, how many
books has he left?

XXXIII.

1. If you have two cents, how many would
you have if you had three times as many?

2. How many feet have three men?

3. How many shoes are there in three pair?

4. If one table has four corners, how many
corners will two such tables have?

5. How many wings should four birds have?

is cost?

Four children have how many ears?

How many feet have two horses?

How many wheels have two carriages?

How many wheels have four chaises?

XXXIV.

How many legs have three andirons?

If there are five fingers on one of your
s, how many are there on both?

Five pair of gloves are how many gloves?

Two books cost five cents apiece, how
7 cents do both cost?

How many noses have ten little girls?

If every little girl had as many noses
has eyes, how many noses would five
ls have?

7. How many thumbs have five pair of mittens?

8. If one orange costs three cents how many cents will three oranges cost?

9. If you can buy three apples for a cent, how many can you buy for three cents?

10. If you can buy two peaches for a cent, how many peaches can you buy for five cents?

XXXV.

1. A boy buys three pears for six cents; how many cents did he give apiece?

2. Two oranges cost six cents; how many cents is that apiece?

3. A man divides eight cents between four of his children; how many cents do they have apiece?

4. If you give seven cents to seven boys, how many cents will they have each?

5. If three picture books cost nine cents, how many cents is that apiece?

- children, how many will each ~~child~~ have?
9. How many books at two cents apiece can you buy for ten cents?
10. How many thimbles at five cents apiece can you buy for ten cents?
11. If I give ten cents to five boys and five girls, how many cents will the girls and boys have apiece?

XXXVI.

1. I give one cent for an apple, two cents for an orange, and three cents for a pear. How many cents do I spend in all?
2. I give two cents to one boy, and

4. One book costs three cents, and another two cents; how many cents do three of the books cost?
5. Three little girls buy a book for two cents, another three cents for a book, and another four cents; how many cents do the three books cost?
6. If your father gives you five cents, and your mother two cents, and you have three cents before, how many will you have in all?
7. If you have three cents, and your father gives you four more to-day, and your mother gives you four more to-morrow, how many will you have in all?
8. If you pay five cents for a book, and three cents for some needles, and three cents for some thread, how many cents do the book, needles and thread cost?
9. If the tongue has two legs, the chair has three and the chair four, how many legs have all of them?

XXXVII.

1. If you spend four cents to-day, and five cents to-morrow, and five cents the next day, how many cents will you spend in all?

2. If there are three birds on one tree, four birds on another tree, and three more on a fence, how many birds will there be in all?
3. If an orange cost five cents, a peach three cents and an apple one cent, how many cents will the orange, peach and apple cost?
4. If you find four pins to-day, four to-morrow, and two the next day, how many pins will you have in all?
5. If you are so careless as to lose three needles at home, six at school, and one in the street, how many needles have you lost?
6. Four little boys meet five little boys, and they meet one more, now how many little boys are together?
7. If a doll cost three cents, a ring four cents, some beads four cents, and an apple one cent, how many cents do all together cost?
8. A wheelbarrow has one wheel, a carriage has two wheels, and a carriage four wheels, how many wheels have all of them?

PART II.

All the preceding exercises have been performed with ten beans, and before commencing this second part, the teacher must satisfy himself that the child can readily perform all the operations required in the first part. Nothing will be gained by hurrying on before the child is prepared to advance.

In these lessons it will be noticed that with the term *beans*, almost exclusively? the teacher will substitute any other term, such

go on, saying, ten beans —
are eleven beans, and one more is

Then take up all but ten, and laying down one,
let the child say how many that makes. Then
lay down another, and let him say how many
ten, and one, and one more are. When he
can do this readily lay down another, telling
him, if he does not know, that ten and one,
and one more, and one more are thirteen.

Then take up all but ten and put down one
at a time, letting the child count as before.

In this way proceed to twenty, taking care
to keep the first ten separate, and to take
up but the ten every time the new
added. This will not require so much

and patience as counting the first

for, as the child is acquainted with

Adding units together, he has only to learn the names from ten to twenty.

XXXIX.

Still keeping the ten separate, put down two more and ask how many are down? Then take the two up, and put three down, asking the same question, and so continue to do until the second ten are put down and counted by the child.

XL.

Put down the whole twenty, keeping the two tens separate, then taking up one bean or counter, ask how many are left. Then take up another and ask the same question. Continue to take up one more until only the first ten are left.

XLI.

Put down ten and then one more counter, and say once ten counters and one more counter are how many counters? Then take up the one and putting two down, say, one

XLII.

Say *ten* counters, and *one* counter are how many times one counter?

Ten counters and two counters are how many times one counter?

Ten counters and three counters are how many times one counter?

So go on; ten and four? ten and five? ten and six? ten and seven? ten and eight? ten and nine? ten and ten, are how many times one counter?

er you put down) counters are
counters? are how many times on

Put down twelve counters, and
down separately, one, two, three,
to eight, asking the same question

Put down thirteen and then one
to seven, and ask as before.

Then put down fourteen, and
one to six more.

Then fifteen, and from one to fi

Then sixteen, and from one to f

Then seventeen, and from o
more.

Then eighteen, and from one

Then nineteen, and one, sayi
nineteen counters and one cou
many counters? are how ma
counter?

XLIV.

Put down the whole twenty
away, ask how many remain
many you have taken away?

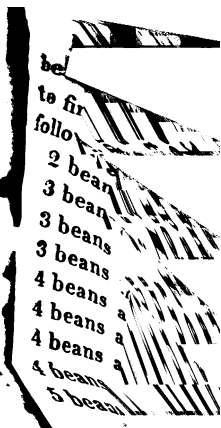
XLV.

ten and take up one, asking
and how many missing?
vo, three, four to eighteen,
tions each time you take

een, and pursue the same
with nineteen.

teen and do the same.

nd fifteen, fourteen, thir-
eleven, taking up of each



number and asking how many remain, and how many are missing or taken up?

The child has already performed this operation from ten downwards, and it will be unnecessary here to write it over again.

XLVI.

Lay the beans before the child and say,
2 beans and 9 beans are how many beans?

Let him count out two beans and nine beans separately, and then put them together to find the answer. Do the same in the three following Lessons.

2 beans and 10 beans are how many beans?

3 beans and 8 beans are how many beans?

3 beans and 9 beans are how many beans?

3 beans and 10 beans are how many beans?

4 beans and 7 beans are how many beans?

4 beans and 8 beans are how many beans?

4 beans and 9 beans are how many beans?

4 beans and 10 beans are how many beans?

beans

5 beans and 8 beans are how many b
5 beans and 9 beans are how many b
5 beans and 10 beans are how many b

XLVII.

6 beans and 5 beans are how many b
6 beans and 6 beans are how many b
6 beans and 7 beans are how many b
6 beans and 8 beans are how many b
6 beans and 9 beans are how many b
6 beans and 10 beans are how many b
6 beans and 11 beans are how many b
6 beans and 4 beans are how many b

- 6 beans and 5 beans are how many beans?
8 beans and 6 beans are how many beans?
8 beans and 7 beans are how many beans?
8 beans and 8 beans are how many beans?
8 beans and 9 beans are how many beans?
8 beans and 10 beans are how many beans?
8 beans and 11 beans are how many beans?
8 beans and 12 beans are how many beans?

XLVIII.

- 9 beans and 2 beans are how many beans?
9 beans and 3 beans are how many beans?
9 beans and 4 beans are how many beans?
9 beans and 5 beans are how many beans?
9 beans and 6 beans are how many beans?
9 beans and 7 beans are how many beans?
9 beans and 8 beans are how many beans?
9 beans and 9 beans are how many beans?
9 beans and 10 beans are how many beans?
9 beans and 11 beans are how many beans?
11 beans and 2 beans are how many beans?

11 beans and 7 beans are how many
11 beans and 8 beans are how many
11 beans and 9 beans are how many
12 beans and 2 beans are how many
12 beans and 3 beans are how many
12 beans and 4 beans are how many
12 beans and 5 beans are how many
12 beans and 6 beans are how many
12 beans and 7 beans are how many
12 beans and 8 beans are how many

beans and 2 beans are how many beans?
 beans and 3 beans are how many beans?
 beans and 4 beans are how many beans?
 beans and 5 beans are how many beans?
 beans and 6 beans are how many beans?
 beans and 2 beans are how many beans?
 beans and 3 beans are how many beans?
 beans and 4 beans are how many beans?
 beans and 5 beans are how many beans?
 beans and 2 beans are how many beans?
 beans and 3 beans are how many beans?
 beans and 4 beans are how many beans?
 beans and 2 beans are how many beans?
 beans and 3 beans are how many beans?
 beans and 2 beans are how many beans?

L.

et these numbers be counted out and
 separate.

beans and 2 beans are how many beans?
 beans and 3 beans are how many beans?
 beans and 4 beans are how many beans?

6 beans and 6 beans are how many beans?
 7 beans and 7 beans are how many beans?
 8 beans and 8 beans are how many beans?
 9 beans and 9 beans are how many beans?
 10 beans and 10 beans are how many beans?
 2 beans and 2 beans and 2 more beans
 that is, three times 2 beans, are how many
 beans?

Keep adding two more beans until you
 put down ten times two. Mind the form
 the question.

3 beans and 3 beans and 3 more beans
 is three times 3 beans, are how many
 beans?

LII.

3 beans and 4 beans and 5 beans make how many beans in all?

4 beans and 5 beans and 6 beans are how many beans?

5 beans and 6 beans and 7 beans are how many beans?

6 beans and 7 beans and 7 more beans are how many beans?

2 beans and 3 beans and 4 beans and 5 beans make how many beans?

Be careful to give the child time to count the beans in separate parcels, or to count his fingers, if he is capable.

2 beans and 4 beans and 6 beans and 3 beans are how many beans?

2 beans and 5 beans and 4 beans and 6 beans, make how many beans?

4 beans and 6 beans and 8 beans and 2 beans are how many beans.

6 beans and 4 beans and 3 beans and 2 beans and 5 beans are how many beans?

14 beans are how many ~~many~~ ~~times~~

Put down 15 beans, and say,

15 beans are how many times 1 bean

15 beans are how many times 3 beans

15 beans are how many times 5 beans

Put down 16 beans, and say,

16 beans are how many times 1 bean

16 beans are how many times 2 beans

16 beans are how many times 4 beans

16 beans are how many times 8 beans

Put down 18 beans and say,

18 beans are how many times 1 bean

18 beans are how many times 2 beans

how many times 3 beans

LII.

3 beans and 4 beans and 5 beans make how many beans in all?

4 beans and 5 beans and 6 beans are how many beans?

5 beans and 6 beans and 7 beans are how many beans?

6 beans and 7 beans and 7 more beans are how many beans?

2 beans and 3 beans and 4 beans and 5 beans make how many beans?

Be careful to give the child time to count the beans in separate parcels, or to count his fingers, if he is capable.

2 beans and 4 beans and 6 beans and 3 beans are how many beans?

2 beans and 5 beans and 4 beans and 6 beans, make how many beans?

4 beans and 6 beans and 8 beans and 2 beans are how many beans.

6 beans and 4 beans and 3 beans and 2 beans and 5 beans are how many beans?

beans are how many beans?
8 beans and 3 beans and 5 beans
beans are how many beans?

LIII.

5 beans and 4 beans and 3 beans are
many times 2 beans?

3 beans and 4 beans and 5 beans are
many times 3 beans.

6 beans and 5 beans and 3 beans are
many times 2 beans?

5 beans and 6 beans and 5 beans are
many times 4 beans?

2 beans and 6 beans and 10 beans are
 many times 3 beans? are how many times
 beans?

3 beans and 4 beans and 6 beans and 7
 beans are how many times 2 beans? 4 beans?
 5 beans? 10 beans?

LIV.

11 beans separated into two numbers will
 make 1 and 10, 2 and 9, 3 and 8, 4 and 7, 5
 and 6.

Let the first child separate the 11 into two
 numbers, then the next child into two oth-
 ers, and so on as long as they can find a new
 mode of doing it.

Separate 12 into two numbers or piles.

Separate 13 into two numbers.

Separate 14 into two numbers.

Separate 15 into two numbers.

Separate 16 into two numbers.

Separate 17 into two numbers.

Separate 18 into two numbers.

Separate 19 into two numbers.

Separate 20 into two numbers.

ers. DO NOT hurry over. This
is not written out at full length.

LV.

11 are how many more than 1? 2?
3? 6? 7? 8? 9? 10? Let each quest
performed separately.

12 are how many more than 1? 2? 3
4? 7? 8? 9? 10? 11?

13 are how many more than 1? 2? 3
4? 7? 8? 9? 10? 11? 12?

14 are how many more than 1? 2? 3
4? 7? 8? 9? 10? 11? 12? 13?

15 are how many more than 1? 2? 3

18 are how many more than
5? 6? 7? 8? 9? 10? 11? 12? 1
16? 17?

19 are how many more than
5? 6? 7? 8? 9? 10? 11? 12?
16? 17? 18?

20 are how many more than
5? 6? 7? 8? 9? 10? 11? 12?
16? 17? 18? 19?

This exercise may be varied
versing the question, and saying
many more than 10? 9? 8? and
12 are how many more than

LVI.

1 is how many less than 11
15? 16? 17? 18? 19? 20?

2 are how many less than
14? 15? 16? 17? 18? 19? 20

3 are how many less than
15? 16? 17? 18? 19? 20?

- 6 are how many less than 11? 12? 13? 14?
? 16? 17? 18? 19? 20?
- 5 are how many less than 11? 12? 13? 14?
? 16? 17? 18? 19? 20?
- 7 are how many less than 11? 12? 13? 14?
? 16? 17? 18? 19? 20?
- 8 are how many less than 11? 12? 13? 14?
? 16? 17? 18? 19? 20?
- 9 are how many less than 11? 12? 13? 14?
? 16? 17? 18? 19? 20?
- 11 are how many less than 12? 13? 14?
? 16? 17? 18? 19? 20?
- 12 are how many less than 13, 14, 15,
16, 18, 19, 20?
- 13 are how many less than 14, 15, 16,
17, 18, 19, 20?

14 beans and 2 beans are how many be
 14 beans and 3 beans are how many be
 14 beans and 4 beans are how many be
 14 beans and 5 beans are how many be
 14 beans and 6 beans are how many be
 15 beans and 2 beans are how many be
 15 beans and 3 beans are how many be
 15 beans and 4 beans are how many be
 15 beans and 5 beans are how many be
 16 beans and 2 beans are how many be
 16 beans and 3 beans are how many be
 16 beans and 4 beans are how many be
 17 beans and 2 beans are how many be
 17 beans and 3 beans are how many be
 18 beans and 2 beans are how many be

L.

Let these numbers be counted out
 kept separate.

2 beans and 2 beans are how many be
 3 beans and 3 beans are how many be
 4 beans and 4 beans are how many be

. windows be on one side of a
 ght windows on the other side
 indows will the house have?
 n squares of glass be broken in one
 d nine squares in another, how
 are of glass are broken in both

ou have seven books with red back
 more with yellow backs, how ma
 ave you in all?
 I lose seven cents to day and
 cents yesterday, how many cents
 in all?

LVIII.

. If eight sticks be piled with three
 w many sticks will be in the pile?
 2. If there are eight children in o
 nd five children in another fam
 many children are in both families?
 3. If a man have eight sons
 daughters, how many children ha

4. If you ride eight miles to-day and nine miles to-morrow, how many miles will you ride in all?

5. If you play eight minutes before school and 12 minutes after school, how many minutes of play time have you?

6. If a pound of sugar cost eight cents and a pound of flour cost eight more cents, how many cents will pay for the flour and sugar?

7. If nine cents be given for a book, and four more for a pencil, how many cents will the book and pencil cost?

8. If a man give one child nine cents and another six cents, how many cents will he give away?

9. If a girl spends nine cents for cake and eight more for candy, how many cents will she spend in all?

10. If it is nine miles to a certain town and you ride 10 miles beyond that town, how many miles will you ride in all?

and five mice in another,
caught in both traps?

4. If one kettle holds eleven pails full, and another holds seven pails full, how many pails full will a kettle as big as both of them hold?

5. Twelve large stones, and five small stones make how many stones?

6. If you put thirteen small sticks of wood in a pile with six large sticks, how many sticks of wood will be in the pile?

7. If you have fourteen small pins and five large ones, how many pins have you?

8. If eleven round stones be put into a box with six square stones, how many stones will be in the box?

9. If I plant fifteen white beans and four red beans, how many beans do I plant in all?

10. If twelve little girls wear brass thimbles and six others wear silver thimbles, how many thimbles do all together wear?

LX.

1. If you spend five cents for a book, seven cents for a doll, and eight cents for a whistle, how many cents do all cost?

2. If you gave four cents for a box, six cents for having it painted, and nine cents for a lock and key to it, how much did the whole cost?

3. If you give eight cents to one boy, four cents to another, and seven cents to another, how many cents do you give away in all?

4. In a school six scholars are reading, five are spelling, and seven cipherring, how many scholars are there?

en years

orchester, how old

8. I had five cents, and
and had eight given to me, how many
in all?

9. If there be only nine pear trees, six
peach trees, and five apple trees in a garden,
how many trees are in the garden?

10. I have spent five dollars for clothes,
eight dollars for food, and four dollars for
books, how many dollars have I spent in all?

LXI.

1. If I have eleven cents and spend
how many will be left?

2. If a book cost eight cents and eleven, how many cents will you have?

3. If eleven men are overturned and only two are saved, how many drowned?

4. A man shot at twelve birds, and all but four; how many did he kill?

5. If five dollars are taken out of eleven dollars, how many will be left?

6. I lose twelve pins and find six; how many are still lost?

7. If you have eleven cents, a book for four cents and some quills for seven cents, how many cents will be left?

8. If you have eleven cents, and three for cake, and five for candy, how many cents will be left to buy apples with?

9. If five cents be given for tape, for thread, and you have twelve cents more, how many more cents have you than the thread cost?

Should I have than I have?

LXII.

1. Fourteen persons are in a room but only
are sitting down, how many are standing?
2. Six persons die out of a family of thir
en persons, how many of the family are
ing?
3. Fifteen children are in a class, and th
ven best are put into a higher class; how
ny are left behind?
4. If you have fourteen cents, and spe
e for raisins, and four for prunes, h
ny cents will be left?
5. I have sixteen cents and give

any for apples, how many cents
buy apples with?

7. If a little boy has thirt
him, and one man gave him ~~five~~
other three, how many did
give him to make up the thirt

8. Sixteen persons are in a
sewing, seven reading, and the
nothing. How many are doin

9. Fourteen men agree to
coaches; four get into one car
into another; how many get in

LXIII.

1. If you buy of a man sixte
of silk, and give him a twenty
a pistareen, how many cents
back?

2. If you buy eight cents
and seven cents worth of mi
nistareen or twenty cent pi

and eight cents worth of salt,
in change, how many cents will he give
in change?

A boy is thirteen years old and his sister
is sixteen, how many years older is the sister
than her brother?

A man had nineteen miles to walk, but
he has walked all but five of them, how many
miles has he walked?

A man had to ride twenty miles in three
hours, the first hour he rode eight miles, the
second seven miles, and how many miles did
he ride in the third hour?

fourteen pounds, how many
 fourth box hold?

9. Nineteen girls are in
 first class contains seven
 six, and the third how ma

LXIV

1. If one orange cost
 two oranges cost?

2. If one lemon cost th
 two lemons cost? what w
 will four cost?

3. If one book cost sev
 two such books cost?

4. If one apple cost 1
 six apples cost? what wil

5. If one quart of be
 what will two quarts co
 quarts cost?

6. If one pound of ra
 what will two pounds cos

7. If one ounce of nutmegs cost nine cents, what will two ounces cost?

8. If a piece of tape cost six cents, what will two pieces cost? what will three pieces cost?

9. If a loaf of bread cost five cents, what will two loaves cost? three loaves? four loaves?

10. If an ounce of candy cost four cents, how much will two ounces cost? three ounces? four ounces? five ounces?

11. If two pounds of rice cost nine cents, how much will four pounds cost?

12. If three pounds of flour cost ten cents, what will six pounds cost?

LXV.

1. A man has three children and gives four cents to each of them; how many does he give all three?

2. A man can walk three miles in an hour; how far can he walk in four hours? five hours? six hours?

3. If one tree bears seven bushels of apples, how many bushels would two such trees bear?

4. I spend five cents for pears and three times as much for peaches; how many cents do I pay for the peaches? How much do I pay for both peaches and pears?

5. If your uncle and aunt and cousin each give you six cents, how many cents will you have?

6. If an apple has two halves, how many halves will two apples have? how many halves will three apples have? four apples? five? six? seven? eight? nine? ten?

7. How many quarters has an apple? how many quarters have two apples? three apples? four? five?

8. If you cut an apple in halves, and then cut the halves in two, how many pieces will there be? What will the four pieces be called?

If these four quarters be cut in two, many pieces will there be?

It is desirable to have the last three explained by cutting up an apple before eyes of the children.

LXVI.

1. Divide twelve apples between two and how many will each boy have?

2. Divide twelve apples between three and how many will each boy have?

3. Divide twelve apples between four and how many will each have?

4. Divide fourteen apples between boys and how many will each have?

5. A man divides 14 apples between his children, how many will they have?

6. Sixteen cents were given to boys, how many cents is that for each?

7. Sixteen pounds of butter are in four boxes, how many pounds will each box, if each contains the same pounds?

8. I bought four books for sixteen cents, how much is that for one book?

9. I sold eight quills for sixteen cents; how much was that apiece?

10. Two loaves of bread cost eighteen cents; how much did one loaf cost at that rate?

11. Three books cost eighteen cents; how much did one cost at that rate? how much did two cost?

12. Eighteen persons are in nine chaises; how many persons will be in each chaise?

13. If three boys ride in one chaise, how many chaises will eighteen boys fill.

LXVII.

1. If twenty men ride in two coaches, how many will be in each coach?

2. If a man pay twenty cents for some apples which are two cents apiece, how many apples will the twenty cents buy?

3. Twenty cents are put into four equal piles, how many cents are there in each pile?
4. Twenty cents are put into five equal piles, how many cents must be in each pile?
5. Your brother has twelve apples, and gives you half of them, how many does he give you?
6. I owe a boy fourteen cents and pay him half of what I owe him, how many do I pay him?
7. Sixteen boys are going to take a sailboat; how many boys are in each boat?
8. I gave eight boys half of an orange apiece; how many oranges did it take?
9. To give eight boys a quarter of an orange apiece, how many oranges will it take?
10. Eight half dollars are how many dollars?
11. Eight quarters of a dollar make how many whole dollars?

12. Three whole dollars are how many quarters of a dollar? how many halves?

LXVIII.

1. Eleven apples divided between two boys will give them how many apiece?

The child may be puzzled; therefore, say each may have five whole ones, and then there will be one whole one left to be divided between them. One apple divided between two boys will give each a half of an apple, so that each boy will have five apples and a half. It is best to procure an apple and cut it up and then save it to illustrate question sixth in this lesson.

2. If thirteen oranges be divided between two boys, how many will each boy have?

3. If fifteen oranges be put into two baskets, how many will there be in each basket?

4. If seventeen dollars are given for two barrels of flour, how many dollars is that for one barrel?

5. Of nineteen shoes how many pairs you make? What part of a pair is the shoe?

6. If thirteen apples be divided between four boys, how many apples will each have?

The child will find that each boy may have three whole apples; then say, one apple left, and this is to be divided between the four boys. An apple cut into four parts will allow a quarter to each boy, and each boy will have three whole apples, and one quarter of an apple.

7. Divide fourteen apples between four girls.

The two odd apples must be equal divided between the four girls. One apple divided between four girls will give a quarter of an apple to each. Two apples among four girls will give each two quarters. Each girl then has three whole apples and two quarters of an apple. Ask the child how much of an apple two quarters make.

Will teach him that a half and two quarters are the same quantity.

8. If fifteen apples are divided between four boys how many apples will each have?

The child will give three whole apples to each boy, and there will be three apples left to be divided between the four boys. You have already seen that one apple divided among four will give one quarter to each, another apple will give another quarter to each boy, and the third apple will give another quarter, so that, besides the three whole apples, there will be three quarters of an apple for each boy.

9. Divide seventeen apples between four boys and how many will each have?

10. Four boys wish to divide eighteen oranges between them, how must they do it, and how many oranges will each have?

11. If you wish to put nineteen pounds of butter into four boxes, how many pounds must

13. A father gave 10 apples to his children. How many apples did each have?
14. Four boys found eighteen dollars, without trying to find the owner, as good would have done, they shared the money equally. How many dollars did each have?

LXIX.

1. If a pound of sugar cost eight cents, what will half a pound cost? what will a quarter of a pound cost?
2. If a loaf of bread weigh 12 ounces, will one half as large weigh? what will one third as large weigh?

Two quarters or a half? three
pound and a quarter? a pound and
ters, or a half? a pound and three
two pounds?

5. If a quarter of a pound of all
four cents, how much will two
half a pound cost? how much will
ters cost? how much will a whole
how much will a pound and a quarter

6. If a quart of beer cost ten cents
will half a quart or a pint cost?
quart and a half cost? what will
cost?

7. If a gallon of wine cost one dollar
will half a gallon cost? what will a
a gallon cost? what will a gallon
cost? what will six gallons cost?
twelve gallons cost?

8. A boy is eight years old, how
he be when he is as old again as
how old will he be when he is half a

PART III.

By this time if the child has not learned to count as far as one hundred, he may be taught by the same method pursued with the first tens, which, in short, is this. Lay beans on the table, and then ten more at a time, till the child knows that these ten make *twenty*. Then lay down one bean towards a new ten, and call it two tens: or twenty one, and so on till you have laid down another ten, when you will say there are three tens or *thirty*. Keep the table rate, and go on to forty, &c. As the child has nothing to learn but the names of tens, it may be taught to say the following:

Ten single things are one ten.

Two tens are twenty.

Three tens are thirty.

Four tens are forty.

Five tens are fifty.

Six tens are sixty.

Seven tens are seventy.

Eight tens are eighty.

Nine tens are ninety.

Ten tens are a hundred.

Then for the sake of exercise, ask the following questions.

LXX.

1. Two tens and three tens are how many tens? Let the child say five tens or fifty.
 2. Three tens and four tens are how many?
 3. Four tens and two tens are how many?
 4. Five tens and four tens are how many?
 5. Six tens and two tens are how many?
 6. Seven tens and three tens are how many?
 7. Eight tens and two tens are how many?
 8. Nine tens and one ten are how many?
 9. Take two tens from ten tens or a hundred and how many tens will be left?
 10. Take three tens, four tens, five tens, six tens, seven tens, eight tens, nine tens, from a
-

or ten tens,

Ten cents and twenty cents -

cents?

23. Twenty cents and thirty cents are how

many cents?

13. Thirty cents and ten cents are how

many cents?

14. Forty cents and fifty cents are how

many cents?

15. Fifty cents and forty cents are how

many cents?

16. Sixty cents and forty cents are how

many cents?

17. Seventy cents and twenty cents are

how many cents?

18. Eighty cents and twenty cents are how

many cents?

9. cents and ten cents are

Te
Th

of
he
th

LXXI. MONEY

Ten milles make one cent

Ten cents make one dime

Ten dimes make one doll

Ten dollars make one ea

This is the currency auth
of the United States, but
hear of milles, dimes or ea
the following table will also

Twenty-five cents make
dollar.

Fifty cents make two q
dollar.

Seventy-five cents make
a dollar.

One hundred cents make

Coins of the above value
to the children. As there
currently passed in this c
should learn the following t
the several coins.

Half-penny is worth six cents
 worth two four pence half-
 pence and two quarters (or a
 worth twenty cents.
 pence is worth ten cents.

LXXII.

How many milles are there in one cent?
 four? five? six? seven? eight?

How many times ten milles as there
 are cents.

How many cents are there in one dime?
 four? five? six? seven? eight?

How many times ten cents as there
 are dimes.

How many dimes are there in one
 dollar? four? five? six? seven?

A
 are
 4.
 eagle
 eight
 A
 are s

1.
 half

Answer, as many times ten dimes as the
the single dollars.

4. How many dollars are there in one
eagle? two? three? four? five? six? seven
eight? nine eagles?

Answer, as many times ten dollars as there
are single eagles.

LXXIII.

1. How many cents are two four pence
half-pennies?

2. How many cents are two nine pences

3. How many nine pences make a quarter
of a dollar?

4. How many four pence half-pennies make
a quarter of a dollar?

5. If two nine pences make one quarter
of a dollar, how many make two quarters or half
of a dollar? three quarters of a dollar? how
many nine pences make a dollar?

6. How many four pence half-pennies are
in one nine pence? How many in a quarter of

Which is the most,

pen?

A. How many dimes are in a pistareen?

A. How many cents are in a pistareen?

10. How many dimes or half pistareens make half a dollar? How many make a dollar?

11. How many pistareens make a dollar?

12. How many cents are in two pistareens? in three? in four? in five?

LXXIV.

1. An eagle is how many dollars?

2. A half eagle is how many dollars?

3. Three half eagles are how many dollars?

4. A dollar is how many dimes? how

many half dollars?

6. How many quarters of a dollar are there in one? two? three? four? five dollars?

7. How many cents are there in one four pence half-penny? two? three? four?

8. How many cents are there in one nine pence? two? three? four? five? six? seven? eight?

9. How many nine pences are there in half dollar? how many in a dollar? then what part of a dollar is a nine pence?

10. How many four pence half-pennies are in a half dollar? are in a dollar? then what part of a dollar is a four pence half-penny?

LXXV.

1. If I buy a book for nine pence and give the bookseller a quarter of a dollar, how many cents must he give me in change?

2. If I buy two pictures at a pistareen piece, and give a half a dollar, how much must I receive back in change?

3. If a pound of butter cost thirty cents and I give two quarters of a dollar, what change must I have back?

5. I buy eight pies at a dime ;
give the pie seller a dollar; how m
must he give me back? ●

6. If you are to have nine pence
in how many weeks will you have t
ters of a dollar?

7. If a labouring man can ear
cents an hour, how long will it tal
earn a dollar? how much will he e
hours?

LXXVI.

TIME.

Sixty seconds make one minute.

Sixty minutes make one hour.

Twenty-four hours make one day.

Names of the days of the week in their order. Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday.

Names of the months in their order.

1st, January, thirty-one days.

2d, February, twenty-eight days.

3d, March, thirty-one days.

4th, April, thirty days.

5th, May, thirty-one days.

6th, June, thirty days.

7th, July, thirty-one days.

8th, August, thirty-one days.

9th, September, thirty days.

10th, October, thirty-one days.

11th, November, thirty days.

12th, December, thirty-one days.

The number of days in each month may be found in the above table, but will be better recollected in the following rhyme:

Thirty days hath September,

April, June and November;

All the rest have thirty-one,

WHICH HATH ONE
Hath twenty-nine, one year

LXXVII.

1. How many minutes are in an hour
many in half an hour? how many in a
ter of an hour? how many in three qu
of an hour?

2. How many hours in a day? how
in half a day? how many in two days?

3. How many days in a week?
weeks? in three weeks? in four weeks?

4. How many weeks in a year? in
year? in a quarter of a year?

5. If a man earns a dollar a day, h
will he earn in a week? how muc
weeks? four weeks?

WEIGHT.

LXXVIII.

Sixteen drams make one ounce

Sixteen ounces make one pound

Twenty-eight pounds make one
a hundred weight.

Four quarters make one hundred

Twenty hundred weight make one

1. A pound is sixteen ounces,
ounces are half a pound? how many
ounces are in a pound? how many are two pounds?
a pound and a half?

2. If a pound of sugar cost six pence,
how much is that an ounce? how much is half a pound?
how much for a quarter of a pound?
how much for two pounds?

LIQUID MEASURE

LXXIX.

Four gills make one pint.

Two pints make one quart.

Four quarts make one gallon.

Thirty-one and a half gallons make one
barrel.

Two barrels, or sixty-three gallons, make one hogshead.

Two hogsheads make one pipe.

Two pipes make one tun.

1. If four gills make a pint, how many gills will make two pints or a quart.

2. If eight gills make one quart, how many gills will make four quarts or a gallon?

3. How many pints are in a quart? how many in two quarts? in three? how many in four quarts or a gallon?

4. How many gills are in a pint? in a quart? in a gallon? in half a gallon?

5. If a gill of rum cost two cents, what will four gills or a pint cost? eight gills or a quart? what will thirty-two gills or a gallon cost?

6. If a gallon of molasses cost thirty-two cents, how much will half a gallon cost? how much will a quart or quarter of a gallon cost? how much will three quarts cost? how much will half a quart or pint cost? how much will ~~it~~ cost?

Forty rods make one furlong.

Eight furlongs make one mile.

Three miles make one league.

1. In one inch how many tenths in two inches? three? four? five?

2. In one inch how many halves in two inches? how many quarters?

3. How many halves in 2 inches?

4. How many quarters in 2 inches?

5. How many inches in a foot? in a quarter of a foot?

6. How many inches in two feet? in one yard?

If a quarter of a yard cost five dollars,
will a whole yard cost? what will half
cost? what will two yards cost?

If an inch of oak plank cost two cents,
will a foot of it cost? what will half
or six inches cost?

LXXXI.

10 and a quarter inches make one nail.
Four nails or nine inches make one quarter
yard.

Four quarters make one yard.

How many inches are in one nail? how
in two nails? in three nails? in four nails
or a quarter of a yard?

How many quarters in a yard? how
in half a yard? in a yard and a half? in
yards?

If a yard of cloth cost ten dollars, what
half a yard cost? what will a quarter of
a yard cost?

If a quarter of a yard of muslin cost ten
cents, what will half a yard cost? what will a
yard cost?

104 J.A. 9 1921

105 J.A. 10 1920

~~106 J.A. 11 1920~~

~~107 J.A. 12 1920~~

